AMENDMENT(S) TO THE CLAIMS

1. (canceled)

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31. (canceled)

32. (canceled)

33. (previously presented): An integrated circuit, comprising:

a plurality of data receivers that evaluate corresponding data signals relative to a distributed reference voltage;

a feedback receiver that evaluates the distributed reference voltage relative to a nominal reference voltage to produce a feedback signal;

a reference voltage driver that produces a compensated reference voltage;

wherein the compensated reference voltage is routed on the integrated circuit to form the distributed reference voltage at the data and feedback receivers, and the input characteristics of the data and feedback receivers cause a voltage change in the distributed reference voltage at each receiver relative to the compensated reference voltage;

wherein the data and feedback receivers have similar input characteristics so that said relative voltage change in the distributed reference voltage is approximately the same at each of the data and feedback receivers;

wherein the reference voltage driver includes an increment/decrement component that produces a digital value in response to the feedback signal, wherein the increment/decrement component is configured to increment and decrement the digital value depending on the relationship of the distributed reference voltage and the nominal reference voltage as indicated by the feedback signal; and

wherein the reference voltage driver has a variable gain that is established by the digital value.

34. (original): An integrated circuit as recited in claim 33, wherein the compensated reference voltage is distributed over impedance-matched conductors to form the distributed reference voltage at the data and feedback receivers.

35. (original): An integrated circuit as recited in claim 33, wherein the increment/decrement component is enabled during an initialization period and the digital value remains constant during a subsequent operational period.

36. (original): An integrated circuit as recited in claim 33, further comprising a register that is configurable to store the digital value and to provide the digital value to the reference voltage driver.

37. (previously presented): An integrated circuit as recited in claim 33, further comprising a register that is configurable to store the digital value and to provide the digital value to the reference voltage driver, wherein the register is readable and writable.

38. (original): An integrated circuit as recited in claim 33, further comprising a digitally controllable variable resistor that controls the gain of the reference voltage driver.

39. (original): An integrated circuit as recited in claim 33, wherein the feedback receiver comprises a low-pass filter that does not significantly affect the input characteristics of the feedback receiver.

40. (original): An integrated circuit as recited in claim 33, wherein the distributed reference voltage is routed similarly to the data and feedback receivers so that said relative voltage change in the distributed reference voltage is approximately the same at each of the data and feedback receivers.

41. (original): An integrated circuit as recited in claim 33, wherein:

the distributed reference voltage is routed similarly to the data and feedback receivers so that said relative voltage change in the distributed reference voltage is approximately the same at each of the data and feedback receivers; and

the feedback receiver comprises a low-pass filter that does not significantly affect the input characteristics of the feedback receiver.

42. (original): An integrated circuit as recited in claim 33, wherein the integrated circuit is a memory device that further comprises a plurality of memory storage cells.

43. (canceled)

44. (canceled)

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46. (canceled)

47. (previously presented): An integrated circuit, comprising:

receiver means for evaluating a plurality of data signals relative to a distributed reference voltage;

feedback means for evaluating the distributed reference voltage relative to a nominal reference voltage to produce a feedback signal;

driver means having a variable gain for producing a compensated reference voltage;

routing means for routing the compensated reference voltage on the integrated circuit to form the distributed reference voltage at the receiver and feedback means;

wherein the input characteristics of the receiver and feedback means cause a voltage change in the distributed reference voltage at the receiver and feedback means relative to the compensated reference voltage;

wherein the receiver and feedback means have similar input characteristics so that said relative voltage change in the distributed reference voltage is approximately the same at each of the receiver and feedback means; and

gain control means for controlling the gain of the driver means in response to the feedback signal so that the distributed reference voltage is approximately equal to the nominal reference voltage;

wherein the compensated reference voltage is distributed over impedance-matched conductors to form the distributed reference voltage at the receiver and feedback means.

48. (canceled)

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53. (canceled)

54. (previously presented): A memory device comprising:

a plurality of memory storage cells that are capable of storing data;

a plurality of data receivers that evaluate binary data signals with reference to a distributed reference voltage and that are coupled to the plurality of memory storage cells;

a feedback receiver that evaluates the distributed reference voltage relative to a nominal reference voltage to produce a feedback signal;

a reference voltage driver that produces a compensated reference voltage;

wherein the compensated reference voltage is routed on the memory device to form the distributed reference voltage at the data and feedback receivers, and the input characteristics of the data and feedback receivers cause a voltage change in the distributed reference voltage at each receiver relative to the compensated reference voltage;

wherein the data and feedback receivers have similar input characteristics so that said relative voltage change in the distributed reference voltage is approximately the same at each of the data and feedback receivers; and

wherein the reference voltage driver has a variable gain that is configurable to increase in response to the feedback signal when the distributed reference voltage is less than the nominal reference voltage and to decrease in response to the feedback signal when the distributed reference voltage is greater than the nominal reference voltage;

wherein the compensated reference voltage is distributed over impedance-matched conductors to form the distributed reference voltage at the data and feedback receivers.

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